

WSR-88D Weather Radar



The picture above shows a standard radome (large white sphere). The radome contains the WSR-88D radar and provides it with protection from the elements.

The image at the right is a Reflectivity image produced by the Lubbock radar on October 5, 2003, at 6:10 pm. The image shows particles detected (in this case rain and hail), with higher reflectivities (more red and purple colors) proportional to heavier precipitation. In this particular case this image shows the structure of a rotating thunderstorm, called a supercell, as it crossed the highway east of Tulia. Note the definite hook echo just northwest of the Home marker. Additionally, the Home marker is located approximately where the greatest circulation is detected by radar. A tornado was reported by spotters southeast of Tulia just after the time of this image.

The most effective tool to detect precipitation is radar. Radar, which stands for **R**adio **D**etection **A**nd **R**anging, has been utilized to detect precipitation, and especially thunderstorms, since the 1940's. Radar enhancements have enabled NWS forecasters to examine storms with more precision.

The NWS's newest radar is called the WSR-88D, which stands for Weather Surveillance Radar - 1988 Doppler (the prototype radar was built in 1988). As its name suggests, the WSR-88D is a Doppler radar, meaning it can detect motions toward or away from the radar as well as the location of precipitation areas.

